

REGULATION FILING AND PUBLICATION CONTINUING EDUCATION FOR ENGINEERS/FIREMEN

1. Regulation Chapter Number and Heading:

522 CMR 18.00

2. Name of Agency:

Department of Public Safety

3. This document is reprinted from the Code of Massachusetts Regulations and contains the following:

522 CMR 18.00: Continuing Education Requirements for Engineers and Fireman

18.01 Scope and Application

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Under the provisions of Massachusetts General Laws, Chapter 30A, Section 6 and Chapter 233, Section 75, this document shall be used as evidence of the original documents on file with the State Secretary.

18.01: Scope and Application

In accordance with the provisions of M.G.L. c. 146, Section 49, the department shall promulgate regulations which shall require the renewal of such licenses every five years. Commencing with the license renewal on January 1, 2000, all individuals licensed by the commonwealth to operate boilers shall demonstrate completion of 30 hours of continuing education at or through an institution or organization approved by the commissioner, in consultation with the chief inspector, during each five-year period preceding each license renewal.

Effective January 1, 2000, all engineers and firemen shall submit to the Department a certificate of completion from any approved institution or organization that they have completed thirty (30) hours of continuing education, or as statute dictates, when renewing their engineer's or fireman's license. The thirty (30) hours of continuing education, or as statute dictates, must be completed before an engineer or fireman license can re-new their license, in an active status.

Final certificate of completion shall be from one institution or organization for all hours required by statute. Approved organizations or institutions may provide credit to individuals who wish to transfer from one organization / institution to another in the middle of a course. The organization or institution may give credit to individuals provided they can provide verifiable proof that they participated in approved continuing education sessions.

Engineers and firemen must complete the full 30 hours of continuing education with the same provider, whether or not said provider may conduct the course at different locations. If a school or organization can not provide the full 30 hours to ensure license renewal, the engineer or fireman may transfer their continuing education training to another organization or school provided they comply with this section.

If an individual must transfer their continuing education training to another organization or school, the individual must receive prior written approval from the Department indicating why they wish to transfer to another program. If approved by the Department, the organization or school they are leaving shall provide them with a certificate verifying the hours they have actively participated in their program. Other organizations or institutions shall accept this certificate as proof of the hours accumulated to date when issuing the final certificate of completion. Only final certificate of completions shall be accepted by the Department of Public Safety. Transfer certificates shall not be submitted to the Department.

Licenses not renewed at expiration date shall become void, and shall after one year be reinstated only by re-examination of the licensee. This provision does not apply to licenses renewed with an "inactive" status.

All Massachusetts Engineer and Firemen licensees, upon completion of 30 hours of continuing education will receive from that school or organization a uniform certificate, approved by the Commissioner, which they will retain and furnish the same to the Department, if so requested. They may also receive matter, approved by the

Commissioner or his/her designee, which must be affixed to their license application upon renewal commencing January 1, 2000.

18.02: Definitions

Approved: Approved by the Commissioner of Public Safety, in consultation with the chief of inspections, which comply with this regulation.

ASME: American Society of Mechanical Engineers

Chief of Inspections: The Chief of Inspections for the Department of Public Safety

Commissioner: The Commissioner of Public Safety

Gas Turbine: A device using combustion gasses directly in a turbine. The basic components of a gas turbine consist of a compressor, combustor and turbine. Fuel used in a gas turbine is natural gas, high quality fuel oil, synthetic gas or liquefied coal.

Guest Speaker: Any individual who participates in the instruction of a continuing education program under the request and direct personal supervision of the duly licensed and registered instructor or monitor of any approved continuing education program for engineers and firemen. Any single guest speaker shall not participate in the instruction of a continuing education program for more than six (6) hours of the thirty (30) hour program.

Instructor: Any person who instructs any continuing education program for engineers or firemen. The Instructor shall hold the same grade of Massachusetts engineer or fireman license to the level of course they are instructing. An engineer or fireman will not be given credit for any programs or courses instructed by an instructor holding a lesser grade license, unless they are a guest speaker approved by the instructor or monitor. Instructors shall only be credited hours for the actual non-redundant time that they have spent actively participating in the instruction of the program.

Monitor: A Massachusetts Engineer who oversees and has been appointed as the administrator for any approved continuing education program for engineers and firemen. It is not required that the monitor is physically present in each class. All Monitors must hold a Massachusetts Engineers license of equal or greater grade of the instructors of any approved program. Monitors shall only be credited hours for the actual non-redundant time that they have spent actively participating in the instruction or design of the program.

NBIC: National Board Inspection Code

Provider: Any school or organization approved by the Commissioner to provide 30 hours of continuing education to engineers and firemen as required by M.G.L. c. 146 section 49.

18.03 Requirements of institutions or organizations

The following provisions are required in order for any institution or organization to have their continuing education program considered for approval:

1. A copy of all curriculum, training material, and certificate of completion to be used must be provided to the Department.
2. Continuing education shall not be divided into training increment less than four (4) hours, unless approved by the Commissioner.
3. Curriculum must contain the minimum topics and associated hours for those topics as listed in 522 CMR 18.04.
4. All courses must be monitored by a Massachusetts Engineer of equal or greater grade of Massachusetts license, who will verify by their signature on the certificate of completion, that all those issued a certificate of completion have fully participated in the program for which they have been issued a certificate. Instructors shall only be credited hours for the actual non-redundant time that they have spent actively participating in the instruction of the program.
5. Method of Verification. Each program must provide a means to ensure certificate authenticity. Such means shall include, but not be limited to:
 - a. School embossment of certificate
 - b. Computer data transfer of program participants
 - c. Signature verification
 - d. Numbering certificates
6. Certificates of Completion or Completion Letters must have the following:
 - a. Name of participant
 - b. Address of participant
 - c. Massachusetts license grade and number of participant
 - d. Name and address of the institution or organization providing the continuing education
 - e. A legible signature of a Massachusetts Engineer verifying participant has completed the hours as listed on the certificate.
 - f. The license number of the Massachusetts Engineer endorsing the certificate.
 - g. Hours of continuing education that the participant has completed

18.04 Curriculum

The following topic shall be covered in any approved curriculum with the recommended time spent each topic:

1. Massachusetts General Law Chapter 146, 522 CMR 1.00-17.00, with particular attention to M.G.L. c. 146 section 46 through 56 and 522 CMR 2.00.

a) Topic Description:

Mass General Law chapter 146 as it pertains to the licensing of Engineers and Fireman; operation, maintenance, inspection and repair of boilers, licensing and scope of work for pipefitters, sprinklerfitters and refrigeration technicians.

b) Purpose:

To insure that all Engineers and Fireman have a thorough knowledge of Mass General Laws and regulations as it pertains to the license they hold.

c) Recommended time allotted:

Four (4) hours.

d) Recommended Instructional Methods:

Lectures, discussion.

e) Recommended Text:

M.G.L. Chapter 146, Massachusetts regulation 522CMR 1-17.

Recommended topics, or topics as approved by the Commissioner, may include but are not be limited to the following:

2. Steam boiler operation

a) Topic Description:

Safe boiler operation, including safe operation and maintenance practices of all appurtenances.

b) Purpose:

To insure that all Engineers and Fireman have a thorough knowledge of safe boiler operation and maintenance of all appurtenances.

c) Recommended time allotted:

Eight (8) hours.

d) Recommended Instructional Methods:

Lectures, discussion.

e) Recommended Text

Boiler Operators Guide-ISBN #0-07-036574-1

Stationary Engineering-ISBN #0-8269-4443-4

Powerplant Engineering-ISBN# 0-07-019106-9

ASME code - Section VII, guidelines for the care of power boilers.

B & W "Steam" - ISBN#09634570-0-4.

3. Steam turbine operation

a) Topic description:

Safe turbine operation, including safe operation and maintenance practices of all appurtenances.

b) Purpose:

To insure that all Engineers and Fireman have a thorough knowledge of safe turbine operation and maintenance of all appurtenances.

c) Recommended time allotted:

Eight (8) hours.

d) Recommended Instructional methods:

Lectures, discussion.

e) Recommended Text:

Boiler Operators Guide-ISBN #0-07-036574-1

Stationary Engineering-ISBN #0-8269-4443-4

Powerplant Engineering-ISBN# 0-07-019106-9

B & W "Steam" - ISBN#09634570-0-4.

4. National Board Inspection Code/ASME Code section I, IV,B31.1 section 6

a) Topic description:

The structure and review of the National Board Inspection Code as well as the ASME Codes as it relates to boiler construction.

b) Purpose:

To insure that all Engineers and Fireman have a working knowledge of the national Board Inspection Code and ASME Codes.

c) Recommended time allotted:

Four (4) hours.

d) Recommended Instructional methods:

Lectures, discussion.

e) Recommended Text:

National Board Inspection Code

ASME Code Section I, IV and B 31.1 Section 6

5. Gas turbines

a) Topic description:

Gas turbine design and operation, including safe operation and maintenance practices of all appurtenances.

b) Purpose:

To insure all Engineers and Fireman have a working knowledge of gas turbine construction, operation, and maintenance, as they relate as an appurtenance of a boiler.

c) Recommended time allotted:

Four (4) hours.

d) Recommended Instructional methods:

Lectures, discussion.

e) Recommended Text:

As determined by the Department.

18.05: Miscellaneous Provisions

1. Any Massachusetts Engineer or Fireman who falsifies or misrepresents any certificate of completion shall be subject to a Department hearing which could result in the suspension or revocation of their Massachusetts Engineer or Fireman's license.
2. Any Massachusetts Engineer or Fireman who is not presently employed in the Commonwealth, and can not obtain the required continuing education necessary to renew their license may, upon written request at the time of renewal, request that their license be placed in inactive status until such time that the continuing education requirements are fulfilled. Engineers or Firemen making such request must submit the renewal fee as required by statute at the time of request.
3. Inactive licenses prohibit those engineer or fireman from legally operating or to be in charge of any steam boiler or turbine/engine so long as the license is inactive.

4. Engineer or Fireman licenses not renewed, either active or inactive, at expiration date shall become void, and shall after one year be reinstated only by re-examination of the licensee.
5. Any instructor added to a program, after a program has been approved, must be approved by the Commissioner or his/her designee.
6. Monitors and instructors who are approved to conduct the 30 hours of continuing education shall keep uniform records of attendance of licensees following the format provided by the Department, for a period of five (5) years after the issuance of the licensees certificate of completion. They shall be responsible for the security of all uniform certificates and other Commissioner approved matter and the proper issuance thereof. Strict and accurate attendance records shall be kept and submitted to the Department, at its request, for review. The Department shall keep records of the issuance of uniform certificates and other matter as it relates to the approved programs. The falsification of attendance records and the fraudulent issuance of certificates or other Department matter by any licensees shall be grounds for initiating formal proceedings under M.G.L. c. 146 section 59 and c. 30A to show cause why their license or licenses should not be suspended or revoked.

REGULATORY AUTHORITY

522 CMR 18.00: M.G.L. Chapter 30, Section 37; M.G.L. Chapter 146, Section 49.